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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,328	04/01/2004	Vesa Juutinen	033047/276527	7552
826	7590	02/03/2006	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000				HUG, ERIC J
ART UNIT		PAPER NUMBER		
		1731		

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/815,328	JUUTINEN, VESA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eric Hug	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 April 2004.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 3-5 and 10-12 recite that the pressure pulse elements are foils, rotating rolls, or non-rotating rolls, however there is no such recitation in the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It has not been disclosed how one would use different pressure pulse elements to generate a pressure pulse in the dewatering space and immediately thereafter direct the pressure pulse away from the dewatering space. It has also not been disclosed what different types of pressure pulse elements may accomplish this.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al (US 4,999,087).

Ebihara discloses a paper web forming apparatus comprising two wires which move together with stock which is held therebetween (dewatering space) and a plurality of wire supporting members forming a wedge-shaped space with a width defined between the wire surface and the wire supporting member, wherein the wedge-shaped space is designed so that it decreases in the direction of movement of the wires. See particularly Figures 1 and 2. Figure 2 shows the pressure pulse profile exerted by foils 35 arranged with the gap oriented as described above. The foils are arranged on opposite sides of the wire. Therefore, pressure pulses are generated on both sides of the dewatering space simultaneously. The arrangement of dewatering elements shown in Figure 2 is suitable for any of the other wire types of paper machines shown in Figures 4, 7, 9, or 11. Note that the double wire type in Figure 9 also shows a plurality of dewatering elements alternately arranged on both the sides of the wires.

The arrangement of foils and the pressure pulses of the invention of Ebihara differ from those of the present invention in that the foil elements are disposed with the wedge-shaped space increasing in the wire movement direction instead of decreasing. However, this type of

arrangement and the claimed pressure pulse profile obtained therefrom is shown as a prior art embodiment in Figure 5 of Ebihara. Alternatively, the use of table rolls instead of foils is disclosed as a prior art embodiment Figure 6 of Ebihara. Figures 5 and 6 have similar pressure pulse profiles. The foils/rolls therein exhibit the claimed positive and negative pressure pulses. Therefore, the claims are unpatentable over the prior art embodiments disclosed by Edihara, because they encompass at least the claimed arrangement of pressure pulse elements. It would have been obvious to one skilled in the art to construct the claimed invention from the prior art teachings of Edihara.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al (US 4,999,087) as applied to claims 1 and 8 above, and further in view of Tokuno (US 5,456,803).

In Ebihara, described above, there is no disclosure of using different types of pressure pulse elements for generating the pressure pulses. Tokuno discloses a double wire paper machine having foils (3) on the inside of one wire (4) and rolls (2) directly opposite and inside the other wire (5). Such a configuration generates the pressure pulse profile (undulations) and amplitude (magnitude of pressure) desired by Tokuno for dewatering. It also provides for flexibility in the choice of number of pulses and the pressure. Therefore, at the time of the invention it would have been obvious to one skilled in the art to use different types of pressure pulse elements in Ebihara to obtain the flexibility as taught by Tokuno.

Claims 1-3, 6, 8-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (US 3,450,596) in view of Ebihara et al (US 4,999,087). Green discloses a twin wire web former having a converging gap (dewatering space), wherein lying on opposite sides of the dewatering space along the wires are deflectors 22 which aid in the dewatering of pulp between the two wires. This arrangement reads on the arrangements given in the claims, but there is little in Green to suggest that the pressure pulses arising from the deflectors are the same as per the claimed invention. However, Ebihara discloses the claimed pressure pulses for the same arrangement of deflectors (foils), therefore it is obvious from Ebihara that the arrangement of deflectors in Green gives rise to the claimed pressure pulses.

Claims 1, 2, 4, 6, 8, 9, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinde (US 1,699,487) in view of Ebihara et al (US 4,999,087). Hinde discloses a twin wire sheet former having a converging gap (dewatering space), wherein lying on opposite sides of the dewatering space along the wires are rolls 16 which aid in the dewatering of pulp between the two wires. This arrangement reads on the arrangements given in the claims, but there is nothing in Hinde to suggest that the pressure pulses arising from the rolls are the same as per the claimed invention. However, Ebihara discloses the claimed pressure pulses for an arrangement of rolls, therefore it is obvious from Ebihara that the arrangement of rolls in Green gives rise to the claimed pressure pulses.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bando et al (US 5,248,392)

Buchmann et al (US 5,735,330)

Iwata et al (US 5,871,617)

These prior art references disclose various configuration of dewatering elements within twin wire paper machines, and also disclose the pressure pulses associated therewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Eric Hug*  
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